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Docket No.: GR 00 P 16715

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MAIL STOP: APPEAL BRIEF-PATENTS

By: Kenghong Chen Date: April 29, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applic. No.	:	09/940,092 Confirmation No.: 5991
Inventor	:	Siegfried Kamlah
Filed	:	August 27, 2001
Title	:	Anti-Theft System for a Motor Vehicle and Method for Operating the Anti-Theft System
TC/A.U.	:	2635
Examiner	:	Kimberly Y. Jenkins
Customer No.	**:**	**24131**

Hon. Commissioner for Patents
Alexandria, VA 22313-1450

BRIEF ON APPEAL

S i r :

This is an appeal from the final rejection in the Office action dated December 15, 2004, finally rejecting claims 1-9.

Appellants submit this *Brief on Appeal* in triplicate, including payment in the amount of $500.00 to cover the fee for filing the *Brief on Appeal*.

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Real Party in Interest:

This application is assigned to Siemens Aktiengesellschaft of München, Germany. The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1-9 are rejected and are under appeal. No claims were cancelled.

Status of Amendments:

No claims were amended after the final Office action. *A Response under 37 CFR § 1.116* was filed on February 15, 2005. The Primary Examiner stated in an *Advisory Action* dated March 10, 2005, that the request for reconsideration had been considered but did not place the application in condition for allowance.

Summary of the Claimed Subject Matter:

As stated in the first paragraph on page 1 of the specification of the instant application, the invention

relates to an anti-theft system for a motor vehicle and a method for operating an anti-theft system for a motor vehicle with which door locks can be locked or unlocked and an immobilizer released.

The anti-theft system for a motor vehicle includes a vehicle-mounted transceiver unit (1) for emitting an interrogation signal (see Fig. 1 and page 8, lines 6-8 of the specification). The transceiver unit (1) has an antenna unit (6) emitting a wave having an elliptical polarization or a circular polarization and the wave includes the interrogation signal (see page 10, lines 1-3 of the specification).

The anti-theft system for a motor vehicle also includes a portable code transmitter (2) transmitting back a response signal only after receiving the interrogation signal having the elliptical polarization or the circular polarization (see Fig. 3 and page 8, lines 9-15 of the specification).

The anti-theft system for a motor vehicle further includes a vehicle-mounted evaluation unit (3) receiving and checking an authorization of the response signal and upon the response signal providing proper authorization (see Fig. 1 and page 8, lines 17-18 and page 9, lines 3-5 of the specification). The vehicle-mounted evaluation unit (3) evaluates a received

signal and compares a code content of the received signal with a stored value only after receiving a circularly polarized or elliptically polarized signal (see page 9, lines 3-9 and page 15, lines 7-15 of the specification). The evaluation unit triggers or enables vehicle-specific functions (see page 3, lines 24-25 of the specification).

According to one embodiment, the method for operating an anti-theft system includes the following steps:

using a vehicle-mounted transceiver unit (1) for emitting an interrogation signal provided in a wave having an elliptical polarization or a circular polarization;

receiving the interrogation signal having the elliptical polarization or the circular polarization in a portable code transmitter (2);

transmitting back a response signal by the code transmitter (2) only if at least two field components of the interrogation signal which are different in their spatial direction are received; and

evaluating a received signal and comparing a code content of the received signal with a stored value using a vehicle-

mounted evaluation unit (3) only after receiving a circularly polarized or elliptically polarized signal.

According to another embodiment, the method for operating an anti-theft system includes the following steps:

receiving an interrogation signal in a wave having an elliptical polarization or a circular polarization in a portable code transmitter (2) and subsequently transmitting back a response signal as a wave having an elliptical polarization or a circular polarization; and

recognizing the response signal as being authorized by a vehicle-mounted transceiver unit (1) only after receiving a circularly polarized or elliptically polarized signal and only if, at least two field components of the response signal which are different in their spatial direction are received and, a coded information item contained in the response signal corresponds to a coded information item expected by the vehicle-mounted evaluation unit (3).

References Cited:

6,577,227 B1	Kirchlinde et al.	June 10, 2003
5,164,985	Nysen et al.	November 17, 1992

6,549,115 B1	Daiss et al.	April 15, 2003
DE 197 18 423 A1	Gold	November 5, 1998

Grounds of Rejection to be Reviewed on Appeal

1. Whether or not claims 1-2, 4, 6-7, and 9 are obvious over Kirchlinde et al. in view of Nysen et al. under 35 U.S.C. §103(a).

2. Whether or not claim 3 is obvious over Kirchlinde et al. in view of Nysen et al. in further view of Daiss et al. under 35 U.S.C. §103(a).

3. Whether or not claims 5 and 8 are obvious over Kirchlinde et al. in view of Nysen et al. in further view of Gold under 35 U.S.C. §103(a).

Grouping of Claims:

Claims 1, 4, and 7 are independent. Claims 2-3 depend on claim 1, claims 5-6 depend on claim 4, and claims 8-9 depend on claim 7. The patentability of claims 2-3, 5-6, and 8-9 are not separately argued. Therefore, claims 2-3 stand or fall with claim 1, claims 5-6 stand or fall with claim 4, and claims 8-9 stand or fall with claim 7. Claims 1, 4, and 7 are argued with similar reasoning and therefore stand or fall together.

Argument:

Whether or not claims 1-2, 4, 6-7, and 9 are obvious over Kirchlinde et al. in view of Nysen et al. under 35 U.S.C. §103(a).

In item 2 on pages 2-3 of the final Office action, claims 1-2, 4, 6-7, and 9 have been rejected as being unpatentable over Kirchlinde et al. in view of Nysen et al. under 35 U.S.C. § 103(a).

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

> a vehicle-mounted transceiver unit for emitting an interrogation signal, said transceiver unit having an antenna unit emitting a wave having one of an elliptical polarization and a circular polarization and the wave including the interrogation signal;
>
> a portable code transmitter transmitting back a response signal only after receiving the interrogation signal having one of the elliptical polarization and the circular polarization; and
>
> a vehicle-mounted evaluation unit receiving and checking an authorization of the response signal and upon the response signal providing proper authorization, said vehicle-mounted evaluation unit evaluating a received signal and comparing a code content of the received signal with a stored value only after receiving a circularly polarized or elliptically polarized signal, said evaluation unit one of triggering and enabling vehicle-specific functions.

Claim 4 calls for, inter alia:

> using a vehicle-mounted transceiver unit for emitting an interrogation signal provided in a wave having one of an elliptical polarization and a circular polarization;
>
> receiving the interrogation signal having one of the elliptical polarization and the circular polarization in a portable code transmitter;
>
> ...
>
> evaluating a received signal and comparing a code content of the received signal with a stored value by a vehicle-mounted evaluation unit only after receiving a circularly polarized or elliptically polarized signal.

Claim 7 calls for, inter alia:

> receiving an interrogation signal in a wave having one of an elliptical polarization and a circular polarization in a portable code transmitter and subsequently transmitting back a response signal as a wave having one of an elliptical polarization and a circular polarization; and
>
> recognizing the response signal as being authorized by a vehicle-mounted transceiver unit only after receiving a circularly polarized or elliptically polarized signal and only if, at least two field components of the response signal which are different in their spatial direction are received and, a coded information item contained in the response signal corresponds to a coded information item expected by the vehicle-mounted evaluation unit.

Kirchlinde et al. disclose an access control system for a vehicle using neither circular nor elliptical polarized waves. Nysen et al. disclose a general communication system using either circular or elliptical polarized waves. However, Nysen et al. do not give any hint toward using circular or elliptical polarized waves for anti-theft systems for vehicles.

Employing circular or elliptical polarized waves for exchanging information for an anti-theft system for vehicles is not obvious because it requires more complex and hence more costly transmitting and receiving hardware which is not very popular in a highly competitive automotive market. Also, it is noted that Kirchlinde et al. (filed 1999) was filed more than 10 years after Nysen et al. (filed 1989) and still does not give any hint toward using circular or elliptical polarized waves for anti-theft systems for vehicles.

In item 1 on page 2 of the Advisory action, the examiner has stated that the test for obviousness is "what the combined teachings of the references would have suggested to those of ordinary skill in the art." This implies that references of interest are already known to one of ordinary skill in the art and the only question is whether he or she would make use of this knowledge. Applicant believes that this is a typical hindsight consideration. In practice this would mean that almost no invention would be patentable since all of the individual technical contributions, which need to be combined to make an invention, are already published somewhere. It also implies that one of ordinary skill in the art has knowledge of all publications in all cross-sectional technologies, which is not realistic.

Therefore, Applicant believes that in order to answer the question whether or not an invention is patentable, it is important to first answer the question whether or not one of ordinary skill in the art would combine two references, which could lead to this invention, not what the combined teachings would have suggested.

It is noted that most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453,1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the appellant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 163.5, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125,1127 (Fed. Cir. 1984).

In this case, the two references Nysen et al. and Kirchlinde et al. are positioned in different technical applications.

Nysen et al. teach a communication system for networks and Kirchlinde et al. teach an anti-theft-system for vehicles. More specifically, the application field of Nysen et al. is "... communication from multiple remote stations to and through a master controlling station" (see column 1, line 18). This leads away from vehicle communication systems disclosed such as by Kirchlinde et al. Furthermore, the discovery of circularly polarized light was made by Fresnel in 1817. In this respect circular polarization has been known for a long time. It is still part of the claims of the instant application because it is not obvious to use circular polarization for some applications. The fact that circular polarized light has not been used for vehicles until now is an indication for something not being obvious.

With regard to the Examiner's argument in item 2 on page 2 of the Office action, it is noted that if there was a noticeable standstill in the development in a certain technical field one could argue it was not obvious to find a solution and therefore, it was not obvious to combine the two references which could lead to such a solution. The references themselves included no hint making it plausible to combine them.

In conclusion, Appellant believes that there has been a prior

failure to find a solution such as disclosed by the invention of the instant application and this is supported by the fact that the two references clearly were not combined until the disclosure of the instant application.

It is accordingly believed that there is no suggestion or motivation for a person skilled in the art to combine Kirchlinde et al. and Nysen et al. Claims 1, 4, and 7 are, therefore, believed to be patentable over the art and since claims 2, 6, and 9 are ultimately dependent on claims 1, 4, or 7, they are believed to be patentable as well.

Whether or not claim 3 is obvious over Kirchlinde et al. in view of Nysen et al. in further view of Daiss et al. under 35 U.S.C. §103(a).

In item 3 on page 4 of the above-mentioned Office action, claim 3 has been rejected as being unpatentable over Kirchlinde et al. in view of Nysen et al. and further in view of Daiss et al. under 35 U.S.C. § 103(a).

As discussed above, claim 1 is believed to be patentable over the art. Since claim 3 is dependent on claim 1, it is believed to be patentable as well.

Whether or not claims 5 and 8 are obvious over Kirchlinde et al. in view of Nysen et al. in further view of Gold under 35 U.S.C. §103(a).

In item 4 on pages 4-5 of the above-mentioned Office action, claims 5 and 8 have been rejected as being unpatentable over Kirchlinde et al. in view of Nysen et al. in further view of Gold under 35 U.S.C. § 103(a).

As discussed above, claim 4 and 7 are believed to be patentable over the art. Since claims 5 and 8 are dependent on claims 4 and 7, respectively, they are believed to be patentable as well.

In view of the foregoing, the honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

Respectfully submitted,

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Claims Appendix:

1. An anti-theft system for a motor vehicle, comprising:

a vehicle-mounted transceiver unit for emitting an interrogation signal, said transceiver unit having an antenna unit emitting a wave having one of an elliptical polarization and a circular polarization and the wave including the interrogation signal;

a portable code transmitter transmitting back a response signal only after receiving the interrogation signal having one of the elliptical polarization and the circular polarization; and

a vehicle-mounted evaluation unit receiving and checking an authorization of the response signal and upon the response signal providing proper authorization, said vehicle-mounted evaluation unit evaluating a received signal and comparing a code content of the received signal with a stored value only after receiving a circularly polarized or elliptically polarized signal, said evaluation unit one of triggering and enabling vehicle-specific functions.

2. The anti-theft system according to claim 1, wherein at least one of said transceiver unit and said code transmitter

has at least two antennas disposed approximately perpendicularly to one another and are controlled phase-shifted with respect to one another for a transmission of signals in order to generate the wave.

3. The anti-theft system according to claim 1, wherein the vehicle-specific functions include a locking of locks, an unlocking of the locks, a turning-off of an immobilizer, and a turning-on of the immobilizer, and the vehicle-specific functions are controlled by the response signal generated by said code transmitter.

4. A method for operating an anti-theft system, which comprises the steps of:

using a vehicle-mounted transceiver unit for emitting an interrogation signal provided in a wave having one of an elliptical polarization and a circular polarization;

receiving the interrogation signal having one of the elliptical polarization and the circular polarization in a portable code transmitter;

transmitting back a response signal by the code transmitter only if at least two field components of the interrogation

signal which are different in their spatial direction are received; and

evaluating a received signal and comparing a code content of the received signal with a stored value using a vehicle-mounted evaluation unit only after receiving a circularly polarized or elliptically polarized signal.

5. The method according to claim 4, which comprises generating the wave using two coils disposed perpendicularly with respect to one another, the two coils functioning as antennas and are actuated by a phase angle of less than/equal to 90° with respect to one another.

6. The method according to claim 5, which comprises actuating one of the two antennas for at least a predetermined time period starting at a predetermined time with a modified transmission power.

7. A method for operating an anti-theft system, which comprises the steps of:

receiving an interrogation signal in a wave having one of an elliptical polarization and a circular polarization in a portable code transmitter and subsequently transmitting back

a response signal as a wave having one of an elliptical polarization and a circular polarization; and

recognizing the response signal as being authorized by a vehicle-mounted transceiver unit only after receiving a circularly polarized or elliptically polarized signal and only if, at least two field components of the response signal which are different in their spatial direction are received and, a coded information item contained in the response signal corresponds to a coded information item expected by the vehicle-mounted evaluation unit.

8. The method according to claim 7, which comprises generating the wave using two coils disposed perpendicularly with respect to one another, the two coils functioning as antennas and are actuated by a phase angle of less than/equal to 90° with respect to one another.

9. The method according to claim 8, which comprises actuating one of the two antennas for at least a predetermined time period starting at a predetermined time with a modified transmission power.